

# **MONTANA WILDLIFE MITIGATION PROGRAM**

## **ANNUAL REPORT FY2011**

**September 28, 2011**





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# MITIGATION SUMMARY

Hydroelectric development at Libby and Hungry Horse dams in northwest Montana flooded 90 miles of the Kootenai and Flathead Rivers, 101 miles of tributary streams, and 52,105 acres of key wildlife habitats. An additional 4,100 acres of important wildlife habitat were lost due to construction and relocation of roads and railroads. Efforts to mitigate these wildlife impacts have been funded by the Bonneville Power Administration (BPA) since the 1970s. Details on current program direction, and how the program has changed over time, can be found in the 5-year operating plan (Wood 2009).

This report summarizes mitigation activities and expenditures associated with the Montana wildlife mitigation program for impacts caused by construction and inundation from Libby and Hungry Horse Dams. During state fiscal year (FY) 2011 (7/1/10 through 6/30/11), we completed an additional 10,251 acres of mitigation, bringing the total acres of wildlife habitat that have been enhanced or conserved to 230,484 acres.

Table 1. Acres of wildlife habitat lost to hydroelectric development, and mitigation accomplished through June 2011.

Habitat Category	Hungry Horse	Libby	Hydropower Losses*	Mitigated thru 6/10	Mitigated FY2011	Total Project Acreage
Riparian/Wetland	6,876	11,724	14,488	17,482	1,491	17,982
Palouse Prairie/Ag	0	1,583	1,251	7,790	75	7,865
Upland Forest	16,804	19,218	27,953	194,961	8,685	204,637
<b>Total</b>	<b>23,680</b>	<b>32,525</b>	<b>43,692</b>	<b>220,233</b>	<b>10,251</b>	<b>230,484</b>

\*Mitigation obligation based on congressional repayment allocation – Hungry Horse 76%, Libby 79%.

At 5.27 times the number of acres lost, these accomplishments provide full mitigation for wildlife impacts resulting from construction and inundation of Libby and Hungry Horse Dams. Current program emphasis is to manage and monitor the investments made in wildlife habitat enhancement and conservation over the last 30+ years. Revenues in excess of maintenance and monitoring needs are used to encourage partnerships that enhance and/or conserve wildlife habitats benefiting wetland/riparian habitats, grizzly bears, terrestrial furbearers, bighorn sheep, and Palouse prairie/Columbian sharp-tailed grouse.

This year we have also added a section documenting accomplishments on the Libby Dam operational impacts assessment. This project is funded by Bonneville Power Administration through the Kootenai Tribe of Idaho to quantify the extent of downstream wildlife impacts caused by operations of Libby Dam. Operational impacts were not included under the 1988 settlement agreement.

Table 2. Wildlife mitigation project accomplishments from the 1970s through FY2011.

<b>Project</b>	<b>FY</b>	<b>Subbasin</b>	<b>Total Ac.</b>	<b>Cost*</b>	<b>Forest</b>	<b>Wetland</b>	<b>Prairie/Ag</b>
KNF misc. big game	1970s	Kootenai	6,596		6,596	0	0
Libby misc. ducks	1970s	Kootenai	157		0	157	0
DeRozer**	1980	Kootenai	1,418	\$1,159,918	617	0	801
W. Kootenai	1980	Kootenai	920	\$752,556	920	0	0
Kootenai Falls	1980	Kootenai	107	\$87,526	107	0	0
FNF Ladenburg	1989	Flathead	1,094	\$400,000	0	1,094	0
KNF Ural-Tweed	1990	Kootenai	1,100	\$58,479	1,100	0	0
Libby Dam Wildlife	1991	Kootenai	840	\$29,302	840	0	0
TNC Copper Creek	1991	L. Clark Fork	107	\$2,200	0	107	0
FNF Cedar Ridge	1994	Flathead	300	\$5,246	300	0	0
FWP Dancing Prairie CE	1996	Kootenai	680	\$175,272	0	0	680
FY96 Partnerships	1996	Kootenai	160	\$4,250	140	20	0
FY96 Partnerships	1996	Flathead	220	\$7,076	200	20	0
FY97 partnerships	1997	Flathead	200	\$13,177	0	175	25
Big Spruce Island	1997	Flathead	40	\$55,087	0	40	0
Big Mountain	1998	Flathead	1,289	\$16,000	1237	52	0
FY98 Partnerships	1998	Kootenai	427	\$6,240	256	10	161
FY98 Partnerships	1998	Flathead	1,248	\$30,071	744	252	252
TCL Exchange	1999	L. Clark Fork	235	\$156,462	0	235	0
FY99 Partnerships	1999	L. Clark Fork	48	\$5,132	0	48	0
FY99 Partnerships	1999	Flathead	600	\$22,378	406	139	55
Coriell Island	1999	Flathead	73	\$22,212	0	73	0
FNF Dry Parks burn	2000	Flathead	3,713	\$6,137	3,713	0	0
FNF Red Bench	2000	Flathead	452	\$42,449	452	0	0
FY00 Partnerships	2000	Kootenai	315	\$4,864	105	210	0
FY00 Partnerships	2000	L. Clark Fork	2200	\$10,000	1,900	100	200
FY00 Partnerships	2000	Flathead	1961	\$34,866	772	191	998
FNF Firefighter	2001	Flathead	911	\$86,872	911	0	0
Island Lake FAS	2001	Kootenai	37	\$25,000	29	8	0
FY2001 Partnerships	2001	L. Clark Fork	410	\$11,320	214	64	132
FY2001 Partnerships	2001	Flathead	989	\$72,870	613	334	42
Loosestrife Control	2001	Flathead	184	\$113,921	0	184	0
Palmer	2002	Flathead	116	\$25,000	0	22	94
FY2002 Partnerships	2002	L. Clark Fork	193	\$14,033	160	13	20
FY2002 Partnerships	2002	Flathead	598	\$37,695	270	80	248
FY2003 Partnerships	2003	Flathead	1,340	\$10,326	610	288	442
Fisher River CE	2004	Kootenai	57,843	\$2,474,587	53,725	4,118	0
Thompson River CE	2004	L. Clark Fork	84,172	\$3,442,571	78,179	5,993	0

<b>Project</b>	<b>FY</b>	<b>Subbasin</b>	<b>Total Ac.</b>	<b>Cost*</b>	<b>Forest</b>	<b>Wetland</b>	<b>Prairie/Ag</b>
FY2004 Partnerships	2004	Flathead	1,879	\$51,163	275	790	814
FY2005 Partnerships	2005	Flathead	924	\$32,539	538	75	311
FY2005 Partnerships	2005	L. Clark Fork	116	\$8,150	47	42	27
FY2006 Partnerships	2006	Flathead	268	13,640	200	68	0
FY2006 Partnerships	2006	Kootenai	950	11377	928	22	0
Swan Valley Partnership	2006	Flathead	6,083	\$7,366	5,816	267	0
Swan Valley Partnership	2007	Flathead	1,121	\$44,381	1,053	68	0
Swan Valley Fee	2007	Flathead	480	0	432	48	0
Elk Creek Fee	2007	Flathead	640	0	401	239	0
FY2007 Partnerships	2007	Flathead	607	\$32,811	311	96	200
FY2007 Partnerships	2007	Kootenai	80	\$9,412	60	20	0
Swan Valley Fee	2008	Flathead	960	0	833	127	0
Noggle Creek addition	2008	Kootenai	255	0	235	20	0
FY2008 Partnerships	2008	L. Clark Fork	100	\$1,113	60	40	0
FY2008 Partnerships	2008	Flathead	2,714	\$68,266	881	735	1,098
Swan Valley Fee	2009	Flathead	320	\$18,618	272	48	0
N Shore Flathead Lake	2009	Flathead	161	\$7,500	0	11	150
Foys Bend	2009	Flathead	245	0	0	143	102
Hay Creek	2009	Flathead	51	0	21	30	0
FY2009 Partnerships	2009	Flathead	1,023	\$25,562	873	90	60
Paint-Emery Burn	2009	Flathead	4,667	\$18,610	4,667	0	0
FY2010 Partnerships	2010	Kootenai	155	\$9,525	145	10	0
FY2010 Partnerships	2010	Flathead	1,950	\$50,931	718	359	873
Osprey View FCA	2010	Flathead	25	0	0	20	5
Ninepipe Wetlands	2010	Flathead	87	0	0	87	0
FY2011 Partnerships	2011	Kootenai	41	\$3,189	31	10	0
FY2011 Partnerships	2011	Flathead	153	\$9,500	78	0	75
CSKT Steel Bridge	2011	Flathead	146	\$0	0	146	0
West Swan CEs	2011	Flathead	9,349	\$8,675	8,034	1,315	0
Swan Valley Fee	2011	Flathead	452	0	432	20	0
KNF Kootenai River	Active	Kootenai	21,079	\$1,527,829	21,079	0	0
KNF Kootenai River	2011	Kootenai	110	\$10,389	110	0	0
<b>Total</b>			<b>230,484</b>	<b>\$11,391,641</b>	<b>203,646</b>	<b>18,973</b>	<b>7,865</b>

\*Direct project cost incurred by the Wildlife Mitigation Trust Fund.

\*\*Acreage adjustment from last year based on changes made in the 2004 operating plan.

# **PROGRAM PLANNING & COORDINATION**

By Alan Wood and Gael Bissell, Montana Fish, Wildlife & Parks

This section summarizes activities and expenses associated with administration, planning, and coordination of the wildlife mitigation program. Annual management of the program includes writing work plans, developing and managing budgets, and supervising personnel. In addition, there are a wide variety of other organizations with programs that may affect wildlife populations and their habitats in northwestern Montana. Ongoing efforts to coordinate our activities with other wildlife programs in Montana and throughout the Columbia Basin better integrate the wildlife mitigation program with these other efforts.

## **NW POWER AND CONSERVATION COUNCIL FISH AND WILDLIFE PROGRAM**

Although Montana has settled with Bonneville for the wildlife impacts resulting from construction of Libby and Hungry Horse Dams, the Council program is still pertinent to our efforts because the Montana settlement requires that we undertake mitigation actions “in a manner that is consistent with the Council’s Columbia River Basin Fish and Wildlife Program.” We continue to monitor Council activities and participate as needed when those actions are pertinent to Montana’s ongoing wildlife mitigation program.

## **LIBBY DAM OPERATIONAL IMPACT STUDY**

This pilot study being conducted by the Kootenai Tribe of Idaho will assess the wildlife impacts resulting from hydropower operations at Libby Dam. Fish, Wildlife & Parks (FWP) is using wildlife trust fund dollars to supervise FWP personnel conducting riparian surveys, develop annual work plans, develop and manage the budget, and to participate in project planning and administration. This year the project focused on intensive data analysis and model development.

## **BPA FISHERIES MITIGATION PROGRAM**

The Montana-BPA Resident Fish Accord in 2009 and the subsequent 2010 Implementation MOA authorized FWP to utilize up to \$15.5 million in BPA capital program funds to mitigate at least 15.5 km of resident fisheries habitat impacted by Hungry Horse Dam. Wildlife staff worked with our fisheries colleagues to negotiate the purchase of the West Swan conservation easements (described in detail under Active Partnerships). We spent \$5 million from the U.S. Fish and Wildlife Service’s Habitat Conservation Plan Land Acquisition Program and \$9.75 million from the Montana Fish Accord to conserve 9,349 acres of former Plum Creek Timber Company lands in the western portion of the Swan River State Forest in December 2010.

## **FLATHEAD RIVER-TO-LAKE INITIATIVE**

FWP continues to cooperate with conservation partners and other agencies and the Confederated Salish and Kootenai Tribes (CSKT) to help plan, obtain grants, provide education, and conserve lands along the Flathead River main stem from Columbia Falls to Flathead Lake and along the North Shore. The primary goal of the River-To-Lake Initiative is to protect large parcels of critical habitat, including wetlands, riparian areas, and adjacent farmland within the river corridor and along the North Shore of Flathead Lake. The Initiative brings agencies and organizations together to provide incentives and options for private landowners to conserve critical habitat. In 2011, wildlife staff worked with FWP and CSKT fisheries programs to assist in the CSKT purchase of 146 acres of islands and lands that adjoin FWP’s Old Steel Bridge FAS near Kalispell. FWP wildlife staff helped with landowner negotiations, baseline inventory, and



other due diligence in conjunction with CSKT and BPA. The project was completed in January 2011 and is included in the summary under Partnership Projects.

#### **NORTH AMERICAN WETLAND CONSERVATION ACT (NAWCA)**

FWP staff continued to work with the Glaciated Valleys of Northwest Montana partners to identify other potential projects to spend the final \$500,000 remaining in a 2008 NAWCA grant. The partners have identified another three possible wetland conservation projects to be completed by May 2012.

#### **FARM AND RANCH LAND PROTECTION PROGRAM**

The Farm and Ranch Land Protection Program (FRPP) provides matching funds to help purchase conservation easements in an effort to keep productive farm and ranchlands in agricultural uses. FWP has helped complete much of the due diligence required for completing a BPA/FRPP land trust conservation project due to close in the fall of 2011.

**HABITAT CONSERVATION PLAN LAND ACQUISITION PROGRAM (HCPLAC)** This program, administered by the U.S. Fish and Wildlife Service, provides funding to states for land acquisitions that promote endangered species conservation on private lands covered by an approved habitat conservation plan. FWP submitted a grant request in 2011 for \$4 million for the proposed Stimson Forestland Conservation Project near Troy.

#### **FOREST LEGACY PROGRAM**

The Forest Legacy Program provides federal grants to states for conserving important forests that are threatened with conversion to nonforest uses. Our involvement in the Forest Legacy Program includes attending Forest Stewardship meetings, the annual project review meeting, and periodic contacts with program administrators in the Forest Service and FWP. We spent a 2009 Forest Legacy grant to purchase additional acreage in the Swan Valley and developed an application to help fund the proposed Stimson Forestland Conservation project.

#### **MT DEPARTMENT OF TRANSPORTATION WETLAND MITIGATION PROGRAM**

The Montana Department of Transportation (MDT) has proposed to create or restore wetlands on FWP-acquired lands in the Flathead and Mission Valleys to mitigate for wetlands impacted by future highway construction. Currently, FWP is working with MDT to restore riparian habitat on the Foys Bend Fish Conservation Area. MDT is also undertaking preliminary planning to create wetlands on the North Shore State Park/Wildlife Management Area (WMA) and the Ninepipe WMA.

#### **RESIDENTIAL GROWTH IMPACTS**

We continued our work with FWP staff to help identify and conserve important wildlife habitats through our comprehensive Crucial Area Planning process as well as to find ways to mitigate adverse wildlife impacts caused by increasing residential development in rural areas. FWP's land use planner led statewide efforts to draft model subdivision recommendations that would provide ways for developers, county planners, and other authorities to minimize impacts of development on wildlife and wildlife habitat. This effort started initially as a project for the Department of Commerce website. After extensive research, it was clear no state has ever drafted comprehensive model subdivision recommendations for fish and wildlife habitat. The wildlife working group included planners, retired biologists, nongovernmental organizations, as well as

both state management and research biologists. The subdivision recommendations are going through final internal and external review by FWP. They will likely be adopted by FWP as a tool for commenting on proposed subdivisions in the future.

## **WHITEFISH NEIGHBORHOOD PLAN**

The City of Whitefish, Flathead County, Montana Department of Natural Resources and Conservation (DNRC), Flathead Gateway Partners, and Montana Fish, Wildlife & Parks have been working with other community members to conserve DNRC trust lands near Whitefish. Over the past year, the groups finalized a strategy to meet the revenue, recreation, and conservation goals of the Whitefish Neighborhood Plan.

## **MAJOR ACTIVITIES PLANNED FOR FY2011**

1. Continue working with agency staff to coordinate acquisition and development projects to benefit fish and wildlife habitat and public recreation and meet the goals for various BPA and other agreements. Assist in grant writing, environmental reviews, management plans, and other documents for current and new conservation partnership projects.
2. Continue to coordinate with River-To-Lake partners to build on past conservation efforts, expend existing grants, and continue outreach and education with private landowners.
3. Continue to assist the Montana Working Forests Project to complete all phases remaining in the Swan Valley.
4. Continue to work with Montana Department of Transportation (MDT) to improve fish and wildlife habitat using MDT wetland mitigation funds on FWP-acquired lands including North Shore State Park WMA, Foys Bend Fish Conservation Area, and Ninepipe WMA.
5. Finalize the Libby Dam operational impact study, and begin development of a management plan to recommend measures to mitigate for impacts identified in the study.
6. Continue to participate in Northwest Power and Conservation Council activities to stay up to date on the Council's fish and wildlife program.
7. Work with FWP staff to deliver wildlife information helpful to local county planning efforts.
8. Participate in other coordination activities as opportunities arise.

Table 3. Budget summary for Program Planning and Coordination, FY2009 through FY2011.

<b>Budget Category</b>	<b>FY09</b>	<b>FY10</b>	<b>FY11</b>
Personal Services	\$34,893	\$35,774	\$36,038
Operations & Maintenance	\$1,802	\$3,560	\$1,406
<b>Subtotal</b>	<b>\$36,695</b>	<b>\$39,334</b>	<b>\$37,444</b>
FWP Overhead	\$3,710	\$3,568	\$4,025
<b>Total</b>	<b>\$40,405</b>	<b>\$42,902</b>	<b>\$41,469</b>

## **MANAGEMENT & MONITORING**

This section reports all activities associated with management and monitoring of wildlife mitigation projects. Ongoing expenses resulting from past mitigation work are funded using interest derived from the Wildlife Mitigation Trust Fund or other department programs. This report and budget reflect that increased effort consistent with the 5-year operating plan (Wood 2009).

### **FWP HABITAT PROJECTS**

By Chris Hammond, Montana Fish, Wildlife & Parks

#### **Dancing Prairie Preserve Conservation Easement**

FWP purchased this conservation easement from The Nature Conservancy (TNC) in 1995. The purpose of this easement was to cooperate with TNC in the preservation and protection of the area that is unique in its wildlife, plants, and origins as partial mitigation for Palouse prairie habitat flooded by Libby Dam. FWP reviewed the property in September 2010 and found TNC to be in full compliance with the easement terms. TNC's weed control program is reducing encroachment and proliferation of noxious weeds on the property. It appears that the property is receiving increasing elk use, mostly in the fall and winter. The conservation easement monitoring report is included under Appendix A.

#### **Thompson-Fisher Conservation Easement**

This easement was completed in September 2003. In July 2010 FWP visited the property and talked with the landowner about activities over the past year. FWP and Plum Creek also agreed to a more structured approach to meeting all reporting requirement outlined in the easement. The monitoring report is included under Appendix A. We were unable to implement the agreements reached last year in regard to encroachment from DNRC cabin lessees onto the easement lands. We continued to work with DNRC and Plum Creek over the past year to find an acceptable solution to the ongoing issue of cabin encroachments.

#### **Swan Valley Conservation Easements**

These conservation easements were completed in September 2006 and December 2010. FWP reviewed the North Swan conservation easement in June 2010, visited with Plum Creek, and concluded Plum Creek was in compliance with the terms of the conservation easement. There are areas of weed infestation on the property where Plum Creek has released insects to help control spotted knapweed with some good results. There was no timber management on the easement last year. The easement lands are currently owned by The Nature Conservancy (TNC, 14,633 acres) and the Montana Department of Natural Resources and Conservation (DNRC, 1,920 acres). The current monitoring report is included under Appendix A.

#### **Ural-Tweed Bighorn Sheep**

Multiple sheep observations were reported along Highway 37 from agency staff and the county sheriff's office indicating that the herd continues to persist at low densities of around 20 sheep or less. The limited reports of lambs, and the fact that these low numbers have been reported since 1997, suggests that there continues to be some low level of reproductive success in the herd. However, numbers this low put the population at a high risk of extirpation. The only sources of genetically-similar sheep to potentially augment this population are animals in Canada living along the Kootenai River. However, these sheep reportedly suffer from sore-mouth disease, a viral disease that is a member of the pox group.

## Summary of FWP Management and Monitoring Activities FY11

1. **Foys Bend Fish Conservation Area:** Wildlife staff continued to work closely with FWP fisheries staff and the Montana Department of Transportation (MDT) to develop a riparian/wetland habitat enhancement plan for this property. The goal is to initiate stream bank restoration and other restoration projects on the property in 2013. FWP continued weed management and worked on the removal of interior fences. FWP also evaluated the effectiveness of deer exclosures on the property. Aspen and cottonwood saplings inside the exclosures were considerably larger (some over six feet tall) than saplings outside of the exclosures, which were heavily browsed (most less than one foot tall). However, several saplings inside were destroyed by voles. In June 2011, FWP conducted a bat capture and handling training class on the property. It was attended by biologists and technicians from Glacier National Park and Waterton Lakes National Park, and a retired USFS wildlife biologist. The team captured only two brown bats, but used recording devices to document hoary, silver-haired, long-eared, little brown, and big brown bats. FWP staff also conducted small mammal surveys on the property (Table 4).
2. **Habitat Enhancement North Shore State Park/Wildlife Management Area (WMA):** MDT held a preliminary field review meeting to determine if there was enough interest to continue moving forward with the project. All agreed that MDT would move forward with their planning procedures to develop wetland restoration plans for the North Shore State Park/WMA. Preliminary work on this project began in the spring of 2011. MDT has placed four groundwater monitoring wells and plans to install three more on the eastern portion of the property. A contractor hired by FWP began farming on the property and planted approximately 80 acres of barley. Up to 85% of the barley will be harvested by the contractor while the remaining 15% will provide food and cover for migrating waterfowl. FWP staff also conducted small mammal surveys on the WMA (Table 4).
3. **West Kootenai WMA:** Over the winter, FWP staff conducted white-tailed deer trail counts on the property in preparation for a forest management plan. The primary goal of the plan was to enhance winter range for deer and elk. FWP contracted with Northwest Management in Helena to complete the forest management plan. The plan was completed in June 2011. It provides recommendations for forest treatments and management that would improve existing stand conditions and trend tree growth toward a mature forest canopy. The plan also provides treatment recommendations to reduce potential fire risk. FWP staff also completed small mammal surveys (Table 4).
4. **Wildlife Survey and Inventory:** FWP staff conducted small mammal surveys on the following properties/areas: Bull River WMA, Kootenai Falls WMA, West Kootenai WMA, North Shore State Park/WMA, Foys Bend Fisheries Conservation Area, North Fork of the Flathead River, Owen Sowerine Natural Area, North Swan WMA, and Ninepipe WMA (Table 4). We also conducted reptile and amphibian surveys on the Thompson Chain of Lakes (15 sites) and North Swan WMA (34 sites). For the Thompson Chain of Lakes, three amphibian species (long-toed salamander, western toad, and Columbia spotted frog) and three reptile species (painted turtle, common garter

snake, and western terrestrial garter snake) were detected at 11 sites. Long-toed salamanders were the most abundant species detected at eight sites, with Columbia spotted frogs and painted turtles at five and six sites respectively. Common garter snakes and western terrestrial garter snakes were detected at two sites each. For the Swan Valley, we detected three amphibian species (long-toed salamander, western toad, and Columbia spotted frog) and one reptile species (common garter snake) at 14 sites. Long-toed salamander and Columbia spotted frog were the most abundant species detected at ten sites each, with western toad and common garter snakes observed at only two sites each.

Short-eared Owl Surveys: FWP staff conducted roadside surveys for short-eared owls twice a week during the month of April to assist in the location of nests. Nest searching began in early May. We located seven short-eared owl nests on the WMA and visited the nests once a week until all the chicks had left the nest at approximately 10-14 days old. Average clutch size was eight. We also conducted small mammal trapping in conjunction with the owl surveys to examine prey composition.

Table 4. Small mammal surveys, FY2011

Trap Site	Trap Nights	Total Captures	Success Rate	Species Richness
North Shore WMA	252	12	0.0476	3
Foys Bend FCA*	390	2	0.0051	7
Bull River WMA	684	22	0.0322	5
West Kootenai WMA	474	38	0.0802	4
North Swan WMA	504	11	0.0218	4
North Fork Flathead River	882	61	0.0692	9
Owen Sowerwine	252	9	0.0357	2
Ninepipe WMA	406	53	0.1305	2
Kootenai Falls WMA	646	52	0.0805	6
<b>TOTAL</b>	4490	260	0.0579	23

\*Includes 6 confirmed bat species (hoary, silver-haired, little brown myotis, long-eared myotis, little brown bats and big brown bats) Other species captured during trapping: American pika, bushy-tailed woodrat, deer mouse, southern red-backed vole, meadow vole, montane vole, heather vole, montane shrew, vagrant shrew, masked shrew, pygmy shrew, dwarf shrew, Preble's shrew, chipmunk spp., long-toed salamander, black-billed magpie.

5. **Spring Waterfowl Surveys:** FWP biologists and volunteers from other agencies and organizations continued their annual inventory of waterfowl from early March through April using systematic aerial and ground surveys of agricultural and wetland areas in the Flathead Valley. The valley was divided into five subunits: Smith Valley, Lower Valley, Fairview-Egan, Riverside, and West Valley. Random square-mile sections plus wetlands were surveyed in these areas in conjunction with habitat surveys. Initial survey data is provided in Tables 5 and 6.

Table 5. Waterfowl counted by sampling area in the Flathead Valley.

Rank	Area	Number of Waterfowl Counted
1	Smith Valley	16,042
2	Lower Valley	15,768
3	Fairview-Egan	9,587
4	Riverside	2,704
5	West Valley	1,163
	<i>Total</i>	<i>45,264</i>

Table 6. Most Common Species observed during spring waterfowl surveys in the Flathead Valley.

Species	Frequency	Total # Birds
Mallard	296	7,846
Northern Pintail	69	6,242
American Coot	26	6,102
Canada Goose	409	5,810
American Widgeon	112	4,407

### Major Activities Planned For FY2011

1. Continue annual monitoring of the Dancing Prairie, Thompson/Fisher, and North Swan Valley conservation easements to insure compliance with the terms of these agreements.
2. Continue to monitor Ural-Tweed bighorn sheep herd.
3. Monitor and manage previously completed habitat conservation projects consistent with existing management plans.
4. Continue wildlife surveys on existing easements and acquisitions.
5. Continue collaboration on restoration projects with Fisheries staff and MDT (i.e., Foy's Bend Fish Conservation Area, North Shore State Park/WMA, and Ninepipe WMA).
6. Analyze data from spring 2011 waterfowl surveys. Continue the spring waterfowl inventory next spring and possibly longer depending on the results.

Table 7. Budget summary for Management and Monitoring, FY2009 through FY2011.

Budget Category	FY09	FY10	FY11
Personal Services	\$25,127	\$43,452	\$50,872
Operations & Maintenance	\$19,225	\$34,770	\$31,860
Capital	\$0	\$665	<b>\$0</b>
<b>Subtotal</b>	<b>\$44,352</b>	<b>\$78,887</b>	<b>\$82,732</b>
FWP Overhead	\$4,484	\$7,156	\$8,893
<b>Total</b>	<b>\$48,836</b>	<b>\$86,043</b>	<b>\$91,625</b>

## **LIBBY HABITAT ENHANCEMENT PROJECT**

By Tim Bumgarner, Kootenai National Forest

The Kootenai National Forest (KNF) began working with the Army Corps of Engineers in the 1970s to improve wildlife habitats on federal lands to mitigate impacts of habitat lost due to the creation of Koocanusa Reservoir by the Libby Dam. Work continues using partnerships with Montana Department of Fish, Wildlife & Parks (FWP)/Bonneville Power Administration (BPA) and KNF funds enhancing big game habitat on nearly 30,000 acres through 2011. After accomplishing and exceeding wildlife mitigation objectives, FWP decided to focus program priorities on maintenance of these habitat improvements.

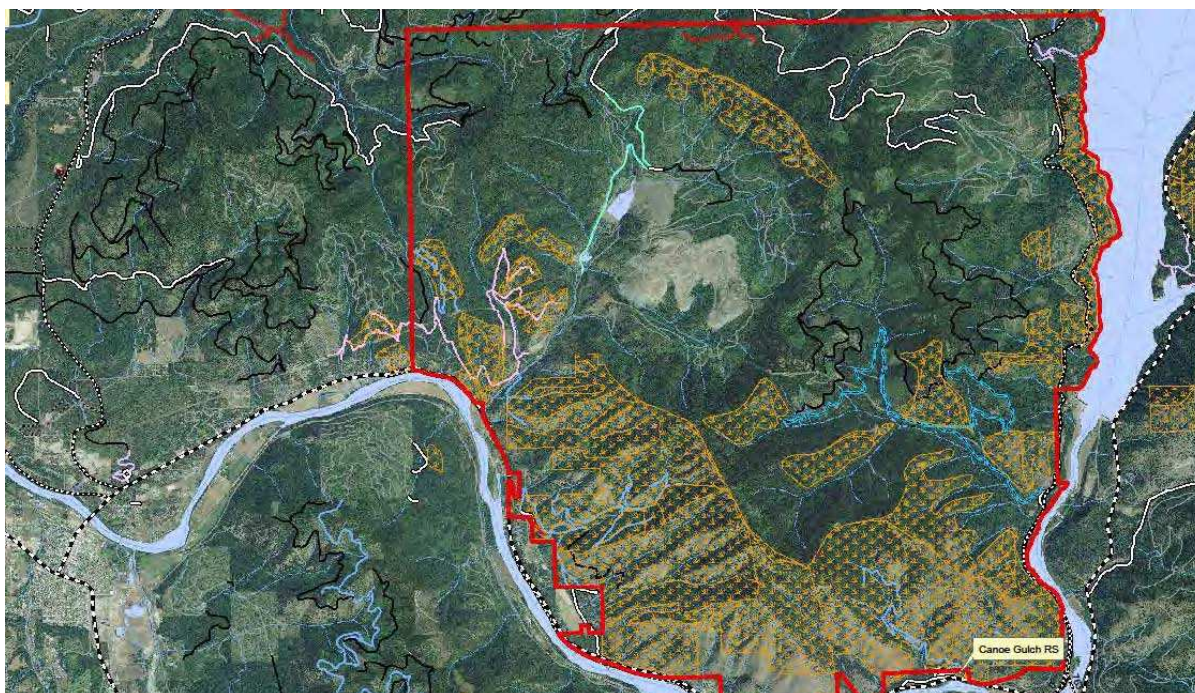
The KNF's commitment to continue this work included completing the Forestwide Fuels Reduction and Wildlife Habitat Enhancement environmental assessment (2001). This analysis provides planning and implementation guidance to continue the partnership and it outlines future enhancement objectives that maintain and expand on the habitat work implemented over the past 30+ years. Treatment areas from the original BPA treatment units are incorporated into this planning document along with other wildlife habitat improvement areas on the KNF that are outside the Libby Dam mitigation area boundary. The KNF is also incorporating future habitat enhancement work into ongoing planning analyses (e.g., East Reservoir project, Libby Ranger District; draft expected in September 2011).

Overall habitat management objectives will be achieved through creation of new treatment units in some instances (a shifting mosaic of forest openings across landscapes) as well as maintaining original treatment openings through prescribed fire. Trust fund cost-share dollars will only be used within the original Libby Dam mitigation boundary and will be used only for enhancing the habitat of the targeted wildlife species of concern (bighorn sheep and mule deer). This work accomplishes program goals through ecosystem restoration, rejuvenating forage plants by increasing sunlight to the understory and achieving more open forests that increase sight distances to reduce the likelihood of predation. Implementation actions focus on slashing nonmerchantable trees (<6" dbh), maintaining early seral tree species (ponderosa pine, western larch, and Douglas fir), slashing preferred shrub species, and prescribed burning. Additional program emphasis is to continue to update/create database and GIS information.

FY2011 was a time of transition on the KNF. Jenny Holifield, who led the Libby District program since 1994, accepted a new position in the KNF Supervisor's office. The mitigation program management is now assigned to the District Prescribed Fire and Fuels Specialist. I hold a BS in Wildlife Biology, with my graduate education specializing in ecosystem management. I also have many years experience working in wildlife habitat management and have been certified as a Wildlife Biologist by The Wildlife Society.

An additional transition for this program in 2011 is the creation of a restricted zone on the Libby Ranger District related to the potential health risk caused by exposure to asbestos. The KNF has defined a Fire Management Unit 3 (FMU 3) where activities related to forest management are very limited. Within FMU 3, more than 7,500 acres of treatment units exist within the Libby Dam wildlife habitat mitigation area (see below).





Red line is FMU 3 boundary (approximately 30,000 acres); hash-marked areas are treatment units (approximately 7,500 acres).

Planned treatment units within FMU 3 will no longer be considered for further treatment to avoid any risk of asbestos exposure. Libby Ranger District is currently analyzing areas in and around the Cripple Horse watershed (East Reservoir project) for treatment opportunities related to wildlife habitat enhancement along with reviewing those units already identified under the 'Forestwide Fuels Reduction and Wildlife Enhancement Project.' This analysis will enable maintenance treatments of existing and new habitat enhancement into the future while meeting National Environmental Policy Act requirements and design criteria to mitigate detrimental impacts on other resources. We believe that habitat maintenance burning and restoring dry Ponderosa Pine habitat types in the East Reservoir watersheds will "offset" the removal of the units in the FMU zone from further treatment.

## **Habitat Enhancement**

Habitat enhancements for this partnership are tracked in three separate phases (along with three separate fund codes: 1) planning/treatment unit layout, 2) slashing small trees and shrubs to prepare the unit for prescribed burning and to start rejuvenation of shrubs, and 3) prescribed burning.

Planning and layout: This past year (July 1, 2010, to June 30, 2011), planning, layout, and program administration occurred on six units totaling 1,893 acres. This work involved field determination of unit boundaries, developing treatment prescriptions and mitigation measures regarding other resource concerns, flagging unit boundaries, determining/flagging/GPS of wildlife security areas within treatment units, and program administrative duties. This work was funded with both partnership funds and Forest Service appropriated funds.



Slashing: A fuels slashing contract was implemented and completed on 1,366 acres, funded with Forest Service appropriated funds (i.e., contract costs to pay the contractor and COR contract administration costs). Additionally, Forest Service crews completed slashing on 313 acres using Forest Service appropriated funds. Results of all work met and sometimes exceeded expectations, including key resource concerns for maintaining all snags, slashing only a portion of each clump of shrubs to maintain structural diversity for nesting/foraging songbirds, maintaining security areas within treatment units, reducing tree competition, and clearing around large ponderosa pine and western larch in order to better maintain/protect these ecosystem attributes. Other objectives accomplished include reducing ladder fuels and creating a more continuous fuel bed for burning. All these units will be ready to burn in two years.

Burning: Libby Ranger District personnel were able to successfully complete burning of 110 acres (Little Jackson). Rexford Ranger attempted to burn one unit with aerial ignition (Big Creek), but determined that expected fire effects and burn intensities would not meet wildlife enhancement objectives. The cost associated with this attempted burn was covered with Forest Service appropriated funds

Record snowpack, combined with a cool, wet spring presented continuing challenges to implement our prescribed burns. The lack of good burn windows has prevented the KNF from implementing burns for the last 2-3 years. Spring burning presents the best conditions to meet our habitat enhancement objective, keep per-acre costs lower by allowing multiple burns to be implemented on the same day, minimizing impacts from smoke, and reducing the likelihood of prescribed fire burning outside treatment unit boundaries. Future plans are to incorporate flexibility into our burning to be able to take advantage of any good burn windows and attempt to clear up this backlog of units ready to burn.

Table 8. Annual work plan accomplishments and costs associated with the Libby Habitat Enhancement Project, FY11.

<b>2011 Activity</b>	<b>Planned Acres</b>	<b>Treatment Acres</b>	<b>State Cost Actual</b>	<b>KNF Cost Share Contribution</b>
Planning/Layout	6,460	1,893	\$4,930	\$9,250
Slashing	3,318	1,679	\$3777	\$111,100
Burning	3,322	110	\$1682	\$5,220
<b>Total</b>	<b>13,100</b>	<b>3,682</b>	<b>\$10,389</b>	<b>\$125,570</b>

### **Federal Fiscal Year 2012**

Preliminary planning for this next year will change the focus to provide more funding in burning activities. Many treatments from the original BPA funding in the mid-1990s are coming online in the next year and for several years to come. Ramping up burning, including shifting funding, should develop more flexibility for fire managers to implement more burning whenever environmental conditions allow.

Additional plans for FY2012 are to update costs associated with aerial ignition as price increases are significant. Aerial ignition is the least expensive treatment, per acre, to efficiently apply prescribed fire for landscape burns. Updating GIS and database layers is also planned, since it was not accomplished this past year. A detailed budget and work plan will be developed in the next six weeks.

## **ACTIVE PARTNERSHIPS**

By Gael Bissell, Montana Fish, Wildlife & Parks

Through specific agreements with land trusts, the FWP wildlife mitigation program is able to help defray some of the landowner's or land trust's costs associated with donated or bargain sale conservation easements. The expenses covered include appraisals and other required documentation such as mineral reports and resource documentation reports. This program is offered to landowners who donate conservation easements on lands with habitats that benefit species impacted by construction of Hungry Horse and Libby Dams and demonstrate a need for the support funding.

Additionally, our partnership extends to FWP's ongoing fisheries conservation programs in Region One. In this partnership, wildlife staff provide support in developing project proposals, designing projects where conservation easements are funded by BPA but held by local land trusts, attending landowner meetings and negotiations, developing and implementing management plans, and assisting with due diligence processes. FWP also works with the Confederated Salish and Kootenai Tribes to identify conservation projects for their resident fisheries mitigation program outside the Flathead Indian Reservation.

This last year, the wildlife mitigation program committed nearly \$13,000 to complete two private land trust partnership projects, both with the Montana Land Reliance. One project was completed in the Kootenai drainage while the second was located in the Flathead basin. Combined, these projects conserved 194 acres of private land. For a variety of reasons, there were far fewer land trust partnerships in 2011 than in prior years. Landowners themselves delayed a few projects. Additionally, there were simply fewer landowners interested in donating conservation easements during this economic downturn. Many landowners seem to be waiting until appraised land values stabilize or rebound. This trend may continue into FY2012 if the economy doesn't significantly change over the next year.

In comparison, landowner interest in purchased or bargain sale conservation easements continued through 2011. FWP worked with The Nature Conservancy and Trust for Public Land to complete an FWP-held conservation easement on 9,349 acres of the Montana Legacy project in the Swan Valley. Wildlife staff also assisted the Confederated Salish and Kootenai Tribes to acquire a significant at-risk parcel of land (146 acres) along the Flathead River in a key location to benefit resident fish habitat. FWP also continued to work with Flathead River-To-Lake Initiative partners to identify several new projects for 2011 and subsequent years that would use a variety of funding sources including Farm and Ranch Protection Program, BPA fisheries mitigation funds, and North American Wetlands Conservation Act grants.

**Table 9. Summary of completed partnership projects for FY2011.**

Project Name	Project Type	Partner	Costs Paid by FWP	Total Project Acres	Riparian Wetland Acres	Upland Forest Acres	Prairie Habitat Acres	Subirr. Or Ag Acres	Cost Per Acre
<i>Kootenai Basin</i>									
<b>1. Dunn Creek</b>	CE	MLR	<b>\$3,189</b>	<b>41</b>	<b>10</b>	<b>31</b>	<b>0</b>	<b>0</b>	<b>\$78</b>
<b>Kootenai Total</b>			<b>\$3,189</b>	<b>41</b>	<b>10</b>	<b>31</b>	<b>0</b>	<b>0</b>	<b>\$78</b>

Project Name	Project Type	Partner	Costs Paid by FWP	Total Project Acres	Riparian Wetland Acres	Upland Forest Acres	Prairie Habitat Acres	Subirr. Or Ag Acres	Cost Per Acre
<i>Flathead Basin</i>									
<b>2. Bigfork Sand Hills</b>	CE	MLR	<b>\$9,500</b>	<b>153</b>	<b>0</b>	<b>78</b>	<b>1</b>	<b>74</b>	<b>\$62</b>
<b>3. West Swan</b>	CE	TNC-TPL-FWS	<b>\$8,675</b>	<b>9,349</b>	<b>1,315</b>	<b>8,034</b>	<b>0</b>	<b>0</b>	<b>\$1</b>
<b>4. Steel Bridge</b>	Fee	CSKT	<b>0</b>	<b>146</b>	<b>146</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>\$0</b>
<b>Flathead Total</b>			<b>\$18,175</b>	<b>9,648</b>	<b>470</b>	<b>9,103</b>	<b>1</b>	<b>74</b>	

MLR: Montana Land Reliance; TNC: The Nature Conservancy; TPL: Trust For Public Land.

- 1. Dunn Creek, Libby Dam:** This conservation easement protects 41 acres of low elevation forest and tributary habitat in the Dunn Creek drainage that empties into Lake Koocanusa near Libby Dam. The land abuts Kootenai National Forest land on three sides. It includes riparian habitat as well as mature larch and pine stands, small wet meadows, and a historic homestead. The parcel provides habitat for deer, elk, mountain lions, black and grizzly bears, wolves, lynx, fisher, mountain grouse, and migratory birds dependent on riparian habitats. About 1/4 mile of Dunn Creek runs through the property and supports westslope cutthroat trout.
- 2. Bigfork Sand Hills:** This project is located within a known grizzly bear travel corridor between the Swan Mountains and the Flathead Valley and within a focal area for bear conservation by the Montana Land Reliance. The project, which is near several other completed conservation easements, includes two adjoining parcels owned by family members in an area that is undergoing significant growth. The project protected both agricultural and timberlands important to black bears, white-tailed deer, small mammals, bald eagles, red-tailed hawks, wild turkeys, cavity-nesting birds, and other migratory birds. The project also includes a small area of native grassland habitat.
- 3. West Swan Conservation Easement:** During FY2010 and 2011, FWP worked closely with DNRC and The Nature Conservancy (TNC) to develop a conservation easement and associated management plan for 9,349 acres of former Plum Creek Timber Company lands

located in a checkerboard pattern with DNRC property west of US Highway 83 in the Swan River State Forest. The majority of lands are now owned by TNC, but all will eventually be traded or purchased by DNRC. FWP also worked closely with funders and partners to complete the necessary due diligence including appraisals, draft environmental analysis documents, and approval processes for this conservation easement acquisition. This project, known as the West Swan Conservation Project, proposed that FWP purchase a conservation easement from TNC prior to DNRC's purchase of the underlying fee. These lands have high resident fish and wildlife habitat values. The appraised value for a conservation easement on the total acreage was \$18.2 million, but the landowners agreed to sell the conservation easement at 19% below market value, or \$14.8 million. In December 2010, MFWP completed the project by purchasing two conservation easements from TNC using about \$9.75 million in BPA Fish Accord funds and just over \$5 million from an existing U.S. Fish and Wildlife Service Section 6 Habitat Conservation Plan grant. The below market value donation from TNC was used as match for the HCP portion of the project. The final conservation easement protected 23 miles of perennial trout habitat. It also protected a total of 1,315 acres of riparian/wetland and 8,034 acres of forest habitat important for grizzly bears, black bears, mountain lions, wolves, elk, mule deer, white-tailed deer, forest carnivores such as lynx and wolverine, mountain grouse, migratory birds, and native amphibians and reptiles.

4. **CSKT Old Steel Bridge Acquisition:** FWP wildlife staff assisted in the planning, negotiations, and due diligence of an important 146-acre land acquisition located just south of FWP's 160-acre Old Steel Bridge FAS and just north of the Owen Sowerwine Natural Area. This parcel includes two islands within the Flathead River and side channels and is used by the public for fishing. It adjoins a county road and includes about 13 acres above the 100-year floodplain that could be developed. The CSKT had BPA resident fish funds readily available to purchase this land from the landowner. These funds were available through their own separate BPA agreement. The parcel was appraised at and purchased for \$1.6 million or approximately \$11,000/acre.

Table 10. Budget summary for FWP Active Partnerships, FY2009 through FY2011.

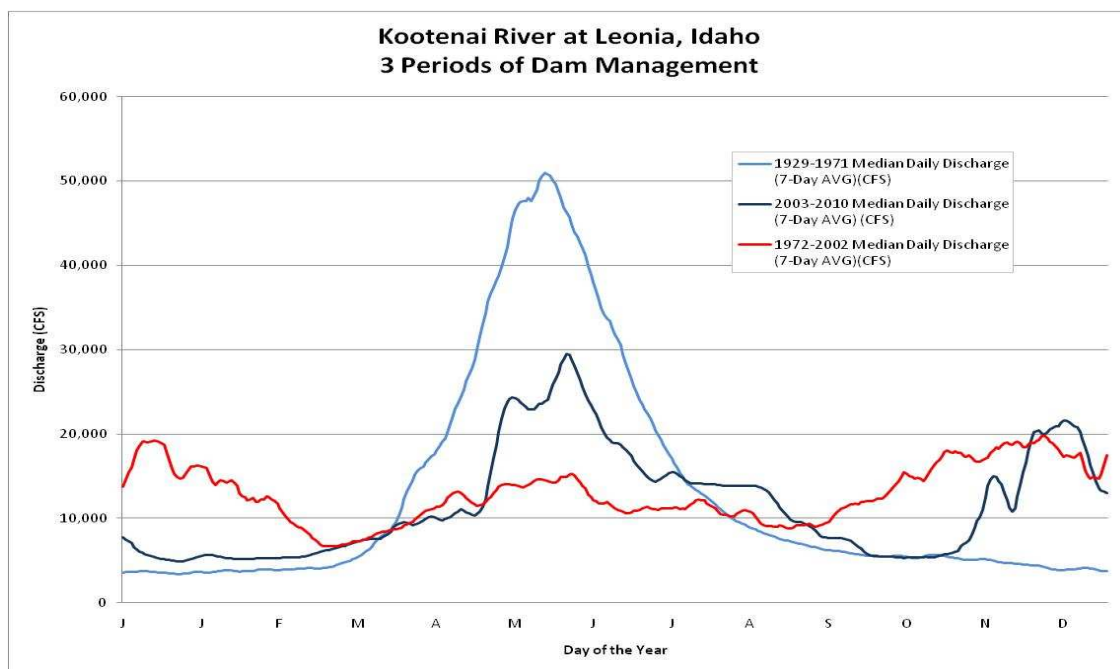
<b>Budget Category</b>	<b>FY09</b>	<b>FY10</b>	<b>FY11</b>
Personal Services	\$87,010	\$88,902	\$89,476
Operations & Maintenance	\$42,745	\$64,954	\$34,395
Capital	\$24,012	\$14,856	\$17,003
<b>Subtotal</b>	<b>\$153,767</b>	<b>\$168,712</b>	<b>\$140,874</b>
FWP Overhead	\$15,546	\$15,305	\$15,143
<b>Total</b>	<b>\$169,313</b>	<b>\$184,017</b>	<b>\$156,017</b>

# OPERATIONAL LOSS ASSESSMENT – LIBBY DAM

By Dwight Bergeron, Montana Fish, Wildlife & Parks

Bonneville Power Administration (BPA) sells electricity from Libby and Hungry Horse Dams. The Northwest Power Act requires BPA to mitigate fish and wildlife losses associated with both dams. Those wildlife losses attributable to construction and inundation were settled in 1988, under an agreement between BPA and the state of Montana. BPA retains full legal responsibility for mitigating wildlife impacts caused by operations of Montana's federal hydropower facilities. The purpose of this report is to summarize Montana's participation in the project led by the Kootenai Tribe of Idaho (KTOI) to quantify wildlife habitat losses caused by operations of Libby Dam.

Operation of Libby Dam has significantly altered the flow regime of the Kootenai River. As illustrated in the graph below, the normal spring freshet has been attenuated by the operation of Libby Dam with no substantial occurrence of flooding and recharging the floodplain. Additionally, river flows have increased substantially during winter months that normally demonstrate low water conditions.



Data courtesy of Ethan Mace, Water Resources Division, MT DNRC

Dam operations have changed since the advent of fisheries studies occurring downstream of the Libby Dam. Instream flows have been increased in the recent past in an attempt to mitigate problems associated with river fisheries, particularly the Kootenai River white sturgeon. The revised operations are intended to simulate more normal flows annually on the Kootenai River. However, high flows are not allowed to exceed a river elevation of 1,760 feet at Bonner's Ferry (flood stage) and electric generation still results in lower spring freshets and higher off-season flows. High flows may result in bank-to-bank flows, but prevents water from accessing the historic flood plain.

Riparian habitats are a very rare and extremely important ecosystem component, particularly in the west. Riparian communities account for less than one percent of the land cover types in Montana, and yet they support the greatest wildlife diversity of any habitat within the state. Over half of the avian species breeding in Montana utilize the riparian types at some point in their life cycle. Riparian habitats have also been significantly declining throughout the west.

Federal hydropower production has clearly altered ecological processes below Libby Dam and consequently impacted associated riparian communities. It seems apparent that the dam operation has limited the extent of the riparian habitats and possibly contributed to succession of drier habitats in their place. Additionally, woody riparian vegetation that once covered the Kootenai Valley requires sediment deposits or scouring to provide an adequate seedbed for survival and recruitment. Flood prevention eliminates both aspects and therefore limits riparian woody vegetation reproduction and recruitment. Consequently, habitats dominated by woody riparian vegetation have been reduced in size and distribution as a direct result of dam operations. Flood control has also altered nutrient distribution and changed the composition of streambed substrates.

## **OPERATIONAL LOSS ASSESSMENT**

Concern for floodplain functionality and potential impacts associated with dam operation has led to an extensive study intended to quantify the ecological impacts caused by dam operations along the Kootenai River downstream of the Libby Dam. KTOI has taken the lead in creating a multidiscipline approach to the problem. Their approach has included pre- and post-dam hydrologic modeling, indices of biological integrity (IBI) for insects (I-IBI) and avian (A-IBI) biota, vegetative composition, and structural analysis (including photo interpretation and GIS distribution of habitat types). Working groups for each aspect of the project were established. Additionally a Research Development and Review Team (RDRT), that includes the working groups and additional researchers from within each of the disciplines, has served to review and direct the overall research effort.

Montana Fish, Wildlife & Parks (FWP) has been a partner from the inception of the project. FWP has participated actively with overall project direction, review, quality control, and extensively with data collection for avian, insect, and vegetative field data. FWP has worked closely with the KTOI on database establishment and proofing, development of a human disturbance scale for the area, and preliminary development of the avian IBI.

## **FIELD DATA COLLECTION AND MODELING**

FWP assisted with collection of field data for avian, insect, and vegetative biota within a set of randomly placed points along the Kootenai River extending from Libby Dam downstream through the Montana and Idaho portions of the river. Points were randomly selected within the 100- and 500-year flood plain. Habitats were identified using a collapsed set of GAP codes specific to the study area and were mapped along the entire river floodplain below the dam up to the Canadian border.

## AVIAN BIOTA

The avian community was sampled at all of the above-described points with the use of unlimited distance point count method. All birds heard and seen were recorded and each observation included in the database. Each observation consisted of the species, species abundance, distance and direction to the bird, habitat occupied, time, and current weather conditions. Each observation was assessed as to whether the bird was utilizing habitats or merely passing through. A 10-minute point count system was used, organized into three intervals (3-, 5-, and 10-minute blocks) in order to allow data to be used in conjunction with other point count efforts. Each point count was sampled three times annually in order to account for different breeding chronologies of bird species. The avian point count effort consisted of 90 and 65 points within the Montana and Idaho river sections respectively. All data was combined into a single database. While an unlimited distance point count was used, data analysis was restricted to the avian biota within 50 meters in order to reduce observer error.

## GIS LAND COVER MAPPING

Land cover mapping was completed for the entire Kootenai River using the classification and codes in Current Vegetation Map of Northern Idaho and Western Montana (Wildlife Spatial Analysis Lab, June 1996). GAP codes utilized throughout Montana were structured to specifically reflect habitat types along the Kootenai River. In this case, GAP codes were combined. Land cover classifications that we implemented are listed in Table 11 below. Habitat classification has been checked from the ground and is being updated to reflect proposed changes.

Table 11. Collapsed GAP Codes

<i>Collapsed GAP Code</i>	<i>DESCRIPTION</i>
1100s	Developed residential or transportation
2100s	Agriculture
3100s	Grasslands
4000s	Conifer/mixed conifer
5000s	Water and unvegetated shoreline
6000s	Deciduous and mixed deciduous trees or shrubs
7000s	Exposed rock, talus, scree, riprap

## **DATA ANALYSIS**

Initial data analysis has been completed utilizing principle component and canonical analysis on a selected portion of the overall data. Preliminary results indicate that four models are strongly predictive, relating hydrologic characteristics to biotic characteristics such as habitat dependency, species occurrence and abundance, and key ecological functions (listed below). Initial draft results indicate that these characteristics can adequately predict site scores for an avian index of biological integrity (IBI). The strongest models utilize the following metrics:

1. Guilds – Of the twelve guild characteristics that we used to characterize the avian community, only nesting status contributed significantly to the model. Nesting status identified all species where at least 60% of their reproductive potential occurs within a particular habitat.
2. Species diversity – Both the number of species occurring within sites and the natural log of number of individual birds recorded within a site (count) were important.
3. Key Ecological Functions – KEFs refer to the main ways organisms use, influence, and alter their biotic and abiotic environments. Both the number of functions contributed by species at each site (KEF average) and number of functions duplicated by different species (KEF redundancy) helped inform the strongest models.
4. Vegetative characteristics – The most diagnostic variables from the riparian plant community were overstory canopy structure, overstory canopy coverage, presence of reed canary grass, and proportion of riparian vegetation present within sites.
5. Hydrologic characteristics – Shear stress of the river at each site, water depth, and flood duration were the three primary hydrologic characteristics included in the best models.

## **FUTURE DIRECTION**

Research efforts for the coming year will concentrate on the refinement of all indices and IBI models that will be used to assess and monitor the Kootenai River Valley. The direct intent of the various models is to identify types and extent of floodplain alterations due to river operation. The results will be used to create a management plan that could guide future mitigation efforts. The individual model components from hydrologic, vegetative, invertebrate, and avian groups will be used to develop an Index of Ecological Integrity (IEI) that could also be used to quantify not only impacts of dam operations, but also monitor progress and accomplishments of any future mitigation actions.



# **FINANCIAL SUMMARY JULY 2010 THROUGH JUNE 2011**

By Alan Wood, Montana Fish, Wildlife & Parks

## **FUND BALANCE**

The balance of the Wildlife Mitigation Trust Account as of June 30, 2011, was \$12,469,253 (Table 12), a decrease of \$24,534 from last year.

## **REVENUE**

Net revenue into the Trust Account during fiscal year 2011 was \$264,577, primarily from interest on long-term bonds (\$417,967), but offset by depreciation on investments (\$171,671) (Table 13).

## **DIRECT EXPENDITURES**

Direct expenditures totaled \$261,050, which included \$176,386 for personal services, \$60,162 for operating expenses, and \$24,502 for capital and partnership projects (Table 14).

## **RETURN ON INVESTMENTS**

Average yield from long-term investments decreased from 4.39% in June 2010 to 4.05% in June 2011, the fourth straight year of decline (Table 15). Long-term investments generated an estimated annual income of \$455,238.

## **TRUST FUND SUMMARY**

The current trust fund balance of \$12,469,253 is a result of \$13,000,000 transferred from BPA to Montana, \$12,778,256 in total earnings, \$13,350,674 in expenses, and \$41,671 added from a one-time accounting change to track investments based on their fair market value (Table 16).

Table 12. BPA Wildlife Mitigation Trust Fund assets, liabilities, and fund balance as of June 30, 2011.

<b>ASSETS</b>		
Cash in Bank	\$2,794	
Interest Receivable	\$112,939	
L/T Corporate Securities at Par	\$11,250,000	
L/T Security Premium	\$1,472	
Short-term Investment Pool	\$1,201,574	
Cash Collateral	\$1,408,540	
Long-Term Securities Appreciation	\$ 326,665	
TOTAL ASSETS		\$14,303,984
<b>LIABILITIES</b>		
Accounts Payable	\$194	
Loans Payable	\$4,000	
Vouchers Payable	\$479	
Fiscal Year-end Payroll	\$6,236	
Accrued Liability	\$255	
Long-Term Security Discount	\$415,027	
Liability Under Securities Lending	\$1,408,540	
TOTAL LIABILITIES		\$1,834,731
FUND BALANCE (Assets - Liabilities)		<u>\$12,469,253</u>
<b>FUND BALANCE</b>		
Unexpended Principal	\$12,500,000	
Unexpended Grant Balance	\$500,000	
One-time Accounting Adjustment 6/30/98	\$41,671	
Cumulative Earnings through 6/30/10	\$12,513,679	
Cumulative Expenses through 6/30/10	(\$13,061,563)	
TOTAL FUND BALANCE 6/30/10		\$12,493,787
<b>TOTAL FY2011 REVENUE</b>		\$264,577
<b>FY2011 EXPENDITURES</b>		
Budgeted Expenditures	\$261,050	
FWP Overhead Assessments	\$28,061	
TOTAL EXPENDITURES		<u>(\$289,111)</u>
<b>FUND BALANCE 6/30/11</b>		<u><u>\$12,469,253</u></u>

Table 13. Income from investments in the Wildlife Mitigation Trust Account, 7/1/10 through 6/30/11.

<b>REVENUE</b>		
Accommodation Tax Agency Refund	\$151	
Long-term Bond Income	\$417,967	
Other Income	\$2,909	
Short-term Investment Pool (STIP) Earnings	\$5,049	
Administrative Expenses	\$(3,522)	
Accretion Bond Discounts	\$8,214	
Amortization Bond Premiums	\$(2,686)	
MT Board of Investments Depreciation	\$(171,671)	
STIP Security Lending Expense	\$(201)	
Security Lending Expense	\$(3,256)	
STIP Security Lending Gross Earnings	\$949	
AOF Security Lending Earnings	\$10,674	
<b>TOTAL REVENUE</b>		<b>\$264,577</b>

Table 14. Expenditures in the Wildlife Mitigation Trust Account, July 1, 2010, through June 30, 2011.

<b>PERSONAL SERVICES</b>		
Salary and Wages	\$133,738	
Employee Benefits	\$42,648	
Total Personal Services		\$176,386
<b>OPERATING EXPENSES</b>		
Contracted Services	\$32,135	
Supplies and Materials	\$5,885	
Communications	\$845	
Travel	\$16,167	
Aircraft Rental	\$898	
Repair and Maintenance	\$3,014	
Training and Other	\$1,218	
Total Operating Expenses		\$60,162
<b>CAPITAL EXPENSES</b>		
Appraisal Fees	\$7,500	
Equipment	\$0	
Capital Outlay (Includes partnership project costs)	\$17,002	
Total Capital Expenses		\$24,502
<b>TOTAL DIRECT EXPENDITURES</b>		<b>\$261,050</b>

Table 15. List of long-term investments held for the Mitigation Trust Account, June 30, 2011.

Security Name	Rate	Maturity	Par	Revenue	Market Value
Bank of America Corp.	2.100	04/30/12	\$500,000	\$10,500	\$499,961
Citigroup Funding Inc.	1.875	10/22/12	\$750,000	\$14,063	\$748,858
Rabobank Nederland	2.125	10/13/15	\$350,000	\$7,437	\$349,267
Federal Farm Credit Bank	3.400	02/07/13	\$1,000,000	\$34,000	\$1,000,000
Federal Home Loan Bank	4.875	11/18/11	\$1,000,000	\$48,750	\$999,840
Federal Home Loan Bank	4.875	06/08/12	\$1,000,000	\$48,750	\$998,264
Federal Home Loan Bank	3.625	09/16/11	\$500,000	\$18,125	\$499,942
Fannie Mae	1.250	02/27/14	\$400,000	\$5,000	\$399,844
Fannie Mae	3.875	07/12/13	\$1,000,000	\$38,750	\$993,670
General Electric Capital Corp.	5.000	04/10/12	\$400,000	\$20,000	\$399,669
Genworth Financial Inc.	5.650	06/15/12	\$400,000	\$22,600	\$399,832
Goldman Sachs Group	5.300	02/14/12	\$500,000	\$26,500	\$499,948
Hershey Foods Corp.	5.300	09/01/11	\$500,000	\$26,500	\$499,967
JP Morgan Chase Company	3.150	07/05/16	\$350,000	\$11,025	\$349,161
Lehman Brothers Holdings Inc.	5.000	01/14/49	\$500,000	\$25,000	\$97,770
Morgan Stanley	2.875	01/24/14	\$350,000	\$10,063	\$349,565
Protective Life	5.450	09/28/12	\$400,000	\$21,800	\$399,772
Verizon New Jersey Inc.	5.875	01/17/12	\$500,000	\$29,375	\$501,471
Wells Fargo Company	5.300	08/26/11	\$500,000	\$26,500	\$499,973
Westpac Banking Corp.	3.000	12/09/15	\$350,000	\$10,500	\$349,670
<b>Total</b>	<b>4.05%</b>		<b>\$11,250,000</b>	<b>\$455,238</b>	<b>\$10,836,444</b>

Table 16. Summary of annual payments, interest earnings, and expenses charged to the Wildlife Mitigation Trust Account, 1989 through 6/30/11.

<b>FISCAL YEAR</b>	<b>PAYMENTS</b>	<b>EARNINGS</b>	<b>EXPENSES</b>	<b>BALANCE</b>
1990	\$2,000,000	\$83,069	\$0	\$2,083,069
1991	\$2,000,000	\$248,869	\$193,464	\$4,138,474
1992	\$2,000,000	\$281,841	\$359,290	\$6,061,025
1993	\$2,500,000*	\$371,564	\$288,330	\$8,644,259
1994	\$2,000,000	\$449,468	\$364,237	\$10,729,490
1995	\$2,500,000	\$712,794	\$393,827	\$13,548,457
1996		\$940,760	\$689,588	\$13,799,629
1997		\$921,217	\$417,409	\$14,303,437
1998	\$41,671**	\$1,098,449	\$469,904	\$14,973,653
1999		\$811,065	\$701,833	\$15,082,885
2000		\$743,744	\$436,916	\$15,389,713
2001		\$1,281,907	\$3,520,048	\$13,151,572
2002		\$856,654	\$407,833	\$13,600,393
2003		\$796,172	\$2,150,709	\$12,245,856
2004		\$68,293	\$1,159,818	\$11,154,331
2005		\$304,645	\$194,209	\$11,264,767
2006		\$291,390	\$193,069	\$11,363,088
2007		\$610,687	\$289,862	\$11,683,913
2008		\$627,289	\$259,701	\$12,051,501
2009		\$278,216	\$258,554	\$12,071,163
2010		\$735,586	\$312,962	\$12,493,787
2011		\$264,577	\$289,111	\$12,469,253
<b>TOTAL</b>	<b>\$13,041,671</b>	<b>\$12,778,256</b>	<b>\$13,350,674</b>	<b>\$12,469,253</b>

\*Total includes \$500,000 transferred to trust fund from BPA Habitat Protection Grant

\*\*One-time accounting addition to track investments based on their fair market value.

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## APPENDIX A

### CONSERVATION EASEMENT MONITORING REPORTS

#### DANCING PRAIRIE CONSERVATION EASEMENT FY2011 REPORT

Easement: Dancing Prairie Conservation Easement

Guiding Documents:

Amended? (note date) NO

Easement dated: 10/27/95

Baseline dated: 9/1/95

Management Plan dated: 10/26/95

Grazing Plan dated: N/A

Special notes: This easement is intended to protect Columbian sharp-tailed grouse and Spaldings catchfly (a rare plant).

Landowner Contact: Maria Mantas, TNC Phone: 466-3040

FWP Regional Biologist: Tim Thier Phone: 882-4697

Name of person completing last monitoring report: Jerry Wells

Date of site visit: September 10, 2010

Date of last monitoring report: June 23, 2009

Current Landowners: The Nature Conservancy

Has property been transferred since last visit? \_\_\_\_\_ YES X NO

If yes: Name of New Owner: \_\_\_\_\_ Phone: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

Does new landowner have easement documents? \_\_\_ Recorded in Book: \_\_\_ Page: \_\_\_

Owner contacted before visit? X YES \_\_\_ NO Date: \_\_\_\_\_

Did owner accompany site visit? \_\_\_ YES X NO

Others on site visit? (list affiliations): \_\_\_\_\_

Is owner in Block Management Program? \_\_\_\_\_ YES X NO



### SUMMARY OF ACTIVITIES SINCE LAST REPORT

Did activities occur requiring prior approval? Describe. ☐ YES ☒ NO  
None apparent

Did any activities occur requiring prior notification? Describe. ☐ YES ☒ NO  
None apparent

Were there any major natural occurrences? Describe. ☐ YES ☒ NO

Are there changes in the land use? Describe. ☐ YES ☒ NO

Are activities on surrounding lands affecting the easement? Describe. ☐ YES ☒ NO  
As noted before, the continued proliferation of subdivision related growth surrounding the easement would likely have undesirable affects in the future, such as noxious weeds and roaming dogs.

Are there possible violations? Attach details. ☐ YES ☒ NO

### SUMMARY OF VISIT

Describe conditions of visit, length, amount of property viewed, and method of monitoring.  
Note photos taken: Include number taken and describe (general landscape, retake of photo pts. or other) (When labeled these should be sent to the Lands Division, FWP, Helena)  
Jerry spent approximately two hours walking the easement property on September 10, 2010. He took photographs, which are documented in a separate memo to FWP, which replicate the baseline photos.

#### **Status of specific easement terms: (use checklist following – if there are changes – describe in detail)**

Specific items of easement not reviewed with landowner. Describe: None

Was Management Plan Reviewed? Note changes. Has Plan been amended? [Note: annual review required by easement]: ☐ YES ☒ NO

The management plan includes several duties that TNC is responsible for, including monitoring of grassland communities, weed control, research plots on Spalding catchfly, and development of prescribed burn plan. FWP is responsible for recovery efforts of Columbian sharp-tailed grouse and establishing and monitoring point transects with 2-3 replicates per year for presence/absence of all bird species.

General conditions of the property (are the purposes of the easement being upheld?): ☒ YES ☐ NO

The property appears to be in good general condition. TNC has an aggressive weed control program that is apparent on the property.

Concerns of the landowner:

TNC continues to be concerned with the control of noxious weeds and devotes a great deal of effort to weed control.

Are the general purposes of the easement being upheld?

☒ YES ☐ NO

Preserve, protect, and enhance the native plant communities and wildlife habitat:

☒ YES ☐ NO

Protect natural and scenic open space:

☒ YES ☐ NO

### PERMITTED ACTIVITIES

#### Fish, Wildlife & Parks:

Permitted FWP activities below. Summarize below FWP activities since the last visit:

In general: identify, preserve & protect; enter to monitor, observe & enforce; prevent inconsistent activities.

Public foot access for recreation & education during times specified in management plan.

FWP has spent some time documenting presence of Columbian sharp-tailed grouse on the property and has not seen any birds since 1999. Tim Thier believes that the Columbian sharp-tails may well have been extirpated in the Tobacco Valley.

#### Landowner:

1. Was livestock grazed at AUMs per year? Was livestock grazing in accordance with grazing plan (part of easement)? Describe:

No livestock use. The winter use by elk continues to increase.

2. Describe management of public access.

Open to the public for foot traffic only from June 15- March 15.

3. Was public access limited to foot access?

☒ YES ☐ NO

4. Were there any prescribed burns?

☐ YES ☒ NO

5. Was there any development of water resources?

☐ YES ☒ NO

6. Were repairs made to fences, buildings, corrals, or other nonresidential improvements?

General Maintenance

☒ YES ☐ NO

7. Was there any construction of additional fences, corrals, roads, travelways, or other?

Nonresidential (kiosk) improvements? If yes, describe and photograph. ☐ YES ☒ NO

8. Was the educational facility constructed? [permitted]

☐ YES ☒ NO

(Requires prior notice – size & height limitations)

There is currently no interest on the part of TNC to construct such a facility.

### PROHIBITED ACTIVITIES

1. Was there any removal of vegetation by any means including burning? ☐ YES ☒ NO  
(prescribed burning allowable if not detrimental to native prairie, grouse or catchfly)
2. Was there rental, lease or sale of access for hunting purposes? [prohibited] ☐ YES ☒ NO
3. Degradation: Were agricultural activities carried out consistent with easement? Explain N/A
4. Were agrochemicals used? Describe: ☒ YES ☐ NO  
Tordon applied with four-wheeler to control noxious weeds.
5. Was there any aerial application of agrochemical? (requires prior approval) ☐ YES ☒ NO
6. Was there any use of off-road vehicles that resulted in soil erosion, soil compaction or in the interference with vegetation or natural habitat? ☐ YES ☒ NO
7. Was there any removal of trees or shrubs? Explain and locate on map. ☐ YES ☒ NO
8. Was there any installation of utility structures or lines (including natural gas lines) (requires prior approval except to educational facilities) ☐ YES ☒ NO
9. Was there any exploration for or development and extraction of minerals, coal, bentonite, hydrocarbons, gravels, soils or other materials? (prohibited except gravel for use on the land; all exploration or development requires plan approval) ☐ YES ☒ NO
10. Was there any legal or defacto subdivision? (See below) Explain. ☐ YES ☒ NO
11. Was there construction or placement of structures? Describe and photograph. Were these new or existing structures? (educational facility requires prior notice) ☐ YES ☒ NO
12. Was a commercial feedlot established or maintained? [Prohibited] ☐ YES ☒ NO
13. Was a game farm established? [Prohibited] ☐ YES ☒ NO
14. Was there commercial/ industrial use other than agriculture? ☐ YES ☒ NO
15. Was there dumping or disposal of waste in existing or new site? ☐ YES ☒ NO
16. Was there additional cultivation lands of predominately native vegetation? Describe and map. (only allowable in rare plant or wildlife habitat restoration projects) ☐ YES ☒ NO

Additional comments or observations:

The noxious weed control program that TNC is conducting is having a significant effect on the encroachment and proliferation of noxious weeds on the property. TNC is now mapping their weed control efforts to determine what kind of long-term results they are getting. As noted before, Columbian sharptails are no longer present on the property and future re-introduction efforts will not include the Dancing Prairie property. Elk use, mostly in the winter months, continues to increase.

The Nature Conservancy – Dancing Prairie Conservation Easement

ITEMS NEEDING PRIOR NOTIFICATION OR APPROVAL

Prior notification necessary: Procedure described in easement

Construction of educational facility

Prior approval necessary: Procedure described in easement

Aerial application of chemicals

Utilities installation except to educational facility

Exploration & development plan for any mineral/hydrocarbon/gravel

**TNC was in compliance with all terms of the conservation easement during FY2011.**

## THOMPSON/FISHER CONSERVATION EASEMENT FY2011 REPORT

Easement: THOMPSON FISHER CONSERVATION EASEMENT

### Guiding Documents

Easement dated: December 20, 2000

Easement RESTATED: May 24, 2001; September 23, 2002; November 27, 2002; September 26, 2003 (Fourth Restatement)

Baseline dated: March 19, 2004 (Landowner) April 5, 2004(FWP)

Landowner contact: Steve Robbins and Jerry Wolcott, Flathead and Libby Unit Managers, Plum Creek Timberlands in Kalispell

FWP Regional Biologist: Alan Wood Phone 406-751-4595

Name of person completing last monitoring report: Grant Bronk

Date of site visit: July 20, 2010 Date of Last monitoring report: August 25, 2009

Current Landowners: Plum Creek Timberlands, LP

Mailing Address: 2050 Highway 2 West, P O Box 8990  
Kalispell, MT 59904

Has property been transferred since last visit? No

If yes, name of new owner:

New owner mailing address:

Does new owner have easement documents?

If yes please provide recording information:

Recorded in Book: Page:

Owner contacted before visit? Yes

Did owner accompany site visit? No

Others on site visit: None

Is owner in Block Management Program? Yes

Office tasks/actions requiring follow-up:

Continue working on amendment of CE and multi-resource management plan to address trespass cabins on adjoining DNRC property. Foundation for amendment has been agreed upon by FWP, Plum Creek and DNRC.

Any landowner management activities requiring FWP Prior Approval? ☐ YES ☒ NO

None observed

Any landowner management activities requiring prior notice to FWP? ☒ YES ☐ NO  
Notified in March regarding a road easement to Stimson Lumber.

Did landowner exercise any limited reserved rights? ☐ YES ☒ NO  
Exercising existing rights in all areas except leases for communication equipment.

Were there any significant changes in conservation easement land use? ☐ YES ☒ NO

Were there any significant natural occurrences that affect the Conservation Easement (fire, drought, disease)? ☐ YES ☒ NO

Have there been changes to surrounding land use that affect the Conservation Easement Property? ☐ YES ☒ NO

Description of Monitor Visit (Monitoring is conducted by auto, plane and/or on foot. Maps, routes and photopoints are all completed using GIS referencing with Trimble Nomad hardware and ESRI ArcPAD software. Photos are taken and stored digitally.):

Grant monitored both drainages over two days by ground – focused on riparian monitor areas. Liaison meeting held in July. All CE reporting requirements delivered as agreed upon by 2/15/11.

Status of Management Plan:

Changes in process; waiting for FWP personnel to begin drafting amendment to CE.

Are the Purposes/Conservation Values of the CE property being upheld sufficiently? ☒ YES ☐ NO

Are FWP rights and responsibilities being met? ☒ YES ☐ NO

#### LANDOWNER RIGHTS AND RESPONSIBILITIES

Buildings and structures:

General agreement made concerning the acceptable DNRC trespass cabins. Other improvements related to maintenance only.

Grazing – Range Management:

Five total lease units; 3 in use/2 inactive. Reports delivered for Big Meadows, Thompson River Ranch, and Carr Coop. FWP review of riparian monitor areas shows acceptable use and improvement in condition.

Cultivation, sod-busting, or other range management:

None observed.

Timber management:

All relevant timber reports delivered. Acceptable management in all cases.

Maintenance/construction to roads, fences, utilities or other improvements:  
 Received notice for Stimson Limber road easement. All else standare maintenance and road improvement. Some closure required for McKillop section.

Water Developments – alterations to wetlands and riaprian areas – changes to water rights:  
 None Observed

Agrichemicals use – Pest management: None Observed

Exploration and/or extraction of soil, gravel, sand, hydrocarbons or other minerals:  
 Need to be better about treating pits not in use relative to weeds and lack of suitable vegetative cover. Need to clarify which pits are active and which are “retired” and coordinate pit management.

Subdivisions, property sales, or property leases:  
 3 of 5 grazing leases in use (1 in the Fisher). 9 outfitter leases in use.

Restoration and/or Habitat Enhancement:  
 Restoration along sections of upper Thompson River still progressing. Cages remain on most shrubs.

Unauthorized commercial uses: None Observed

Dumping: None Observed

Game farming or related: None Observed

Other significant land management issues of interest:  
 Some access closure necessary due to road maintenance along McKillop Road.

Reporting Requirements: All met  
 Need more clarification on excavation sites.  
 Need to identify which drainages are authorized for use under outfitting leases.  
 Need to coordinate on periodic BMP and SFI audits.

Landowner concerns/questions: None expressed

General conditions of the property (are the purposes of the easement being upheld?):  
 The overall condition of the easement ground appears consistent with the terms.

**Plum Creek was in compliance with all terms of the conservation easement during FY2011.**

## NORTH SWAN VALLEY CONSERVATION EASEMENT FY2011 REPORT

Easement: NORTH SWAN VALLEY CONSERVATION EASEMENT

### Guiding Documents

Easement dated:

Easement RESTATED: September 1, 2006

Baseline dated: January 22, 2007 (Contractor)

Landowner contact: Steve Robbins, Flathead Unit Manager, Plum Creek Timberlands in Kalispell

FWP Regional Biologist: Alan Wood Phone: 406-751-4595

Name of person completing last monitoring report: Grant Bronk

Date of site visit: June 7, 2010

Date of Last monitoring report: August 25, 2009

Current Landowners: Plum Creek Timberlands, LP

Mailing Address: 2050 Highway 2 West, P O Box 8990  
Kalispell, MT 59904

Has property been transferred since last visit? No

If yes, name of new owner:

New owner mailing address:

Does new owner have easement documents?

If yes please provide recording information:

Recorded in Book: Page:

Owner contacted before visit? Yes

Did owner accompany site visit? No

Others on site visit: Steve Robbins interviewed by phone.

Is owner in Block Management Program? Yes

Any landowner management activities requiring FWP Prior Approval? ☐ YES ☒ NO

None observed

Any landowner management activities requiring prior notice to FWP? ☒ YES ☐ NO

Forest Service installed a seasonal gate on the Buck Creek A-spur



Did landowner exercise any limited reserved rights? ☐ YES ☒ NO

Were there any significant changes in conservation easement land use? ☐ YES ☒ NO

Were there any significant natural occurrences that affect the Conservation Easement (fire, drought, disease)? ☒ YES ☐ NO

Slight discoloration in leaf tints – most notably among cedar. Is this an indication of stress? No signs of infestation at this point.

Have there been changes to surrounding land use that affect the Conservation Easement Property? ☒ YES ☐ NO

Negotiations for lands to change ownership and for additional conservation easement acreage. No change in land use.

Description of Monitor Visit (Monitoring is conducted by auto, plane and/or on foot. Maps, routes and photopoints are all completed using GIS referencing with Trimble Nomad hardware and ESRI ArcPAD software. Photos are taken and stored digitally.):

Grant toured the property by truck and on foot. Weather was intermittent rain with some low clouds. Visibility and travel were adequate.

Status of Management Plan:

Management plan remains unchanged. SFI 5-year audit is due next year.

Are the Purposes/Conservation Values of the CE property being upheld sufficiently? ☒ YES

Are FWP rights and responsibilities being met? ☒ YES ☐ NO

Liaison meetings for 2009-10 being scheduled.

#### LANDOWNER RIGHTS AND RESPONSIBILITIES

Buildings and structures: None observed

Grazing – Range Management: None observed

Cultivation, sod-busting, or other range management: None observed

Timber management: No activity

Maintenance/construction to roads, fences, utilities or other improvements: None observed  
PCT has shared the 2008 road status report. It remains identical to BL status. Saw no closure discrepancies on the ground.

Water Developments – alterations to wetlands and riparian areas – changes to water rights:  
None observed

Agrichemicals use – Pest management:

Weeds remain a substantial problem at the gravel pit on Goat Creek.

Exploration and/or extraction of soil, gravel, sand, hydrocarbons or other minerals:  
None observed.

Subdivisions, property sales, or property leases: No subdivisions.

Restoration and/or Habitat Enhancement : None observed

Unauthorized commercial uses: None observed

Dumping: None observed

Game farming or related: None observed

Other significant land management issues of interest: None observed

Landowner concerns/questions: None reported

Status of specific easement terms:

Unchanged since final restatement. FWP, PCT, and DNRC are working to resolve issues related to DNRC cabin lease sites that encroach on CE ground. The CE recognizes two cabin sites, and will most probably be amended to add others. Along with this effort, some structures will be removed by PCT mandate. See Stewardship files for more details.

**The landowner was in compliance with conservation easement terms during FY2011.**